

Customer Number

24024

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)	
)	
Kaumaya <i>et al.</i>)	Group Art Unit: 1644
)	
Application No.: 09/990,574)	Examiner: Ilia I. Ouspenski
)	
Filed: November 21, 2001)	Attorney Docket No.: 18525/04028
)	
For: Agents for Blocking T Cell)	
Mediated Immune Reactions)	

RESPONSE

This paper is responsive to the Office Action mailed February 14, 2006, setting an initial due date of May 14, 2006. This paper is timely filed and no fee is required for its consideration.

There are no amendments to the Claims; a listing of the claims begins on page 2; and

Remarks begin on page 4.

Listing of the Claims

1. (Previously Presented) A CD28 peptide mimetic for blocking deleterious T cell mediated immune reaction,

said peptide mimetic being 20 to 25 amino acids in length,

said peptide mimetic comprising levorotary or dextrorotary amino acids,

wherein the peptide mimetic comprises the sequence set forth in SEQ. ID NO: 5 when the peptide mimetic comprises levorotary amino acids; and

wherein the peptide mimetic comprises the sequence set forth in SEQ ID NO: 6 when the peptide mimetic comprises dextrorotary amino acids.
2. (Cancelled)
3. (Original) The peptide mimetic of claim 1 wherein the amino and carboxyl ends of the peptide are end blocked.
4. (Previously Presented) The peptide mimetic of claim 1, wherein the binding affinity of the peptide mimetic for the B7-1 protein is from 10 fold greater to 2 fold less than the binding affinity of CD 28 for the B7-1 protein.
5. (Previously Presented) The peptide mimetic of claim 1, wherein the binding affinity of the peptide mimetic for the B7-1 protein is less than the binding affinity of CTLA-4 for the B7-1 protein.
6. (Previously Presented) The peptide mimetic of claim 1, wherein the K_d of the mimetic with respect to B7-1 is from 2 to 3 micromoles.
- 7-9. (Cancelled)
10. (Previously Presented) A CD28 peptide mimetic for blocking deleterious T cell mediated immune reaction, wherein said peptide mimetic is 20 or 21 amino acids in length and comprises

levorotary or dextrorotary amino acids, and wherein the peptide mimetic comprises the sequence set forth in SEQ ID NO: 5 when the peptide mimetic comprises levorotary amino acids or the amino acid sequence set forth in SEQ ID NO: 6 when the peptide mimetic comprises dextrorotary amino acids.

11-12. (Cancelled)

13. (Previously Presented) The peptide mimetic of claim 10, wherein said peptide mimetic is 20 amino acids in length, and wherein the sequence of said peptide mimetic is SEQ ID NO: 5 or SEQ ID NO: 6.

14-16. (Cancelled)

17. (Withdrawn) A method of treating a subject with a T cell mediated disorder or autoimmune disease comprising: administering a biologically effective amount of one or more CD 28 peptide mimetics of claim 1 to said subject.

18. (Withdrawn) The method of claim 17, wherein the subject has multiple sclerosis.

19. (Cancelled)

20. (Withdrawn) The method of claim 17, wherein the amino and carboxyl ends of the one or more peptide mimetics are end blocked.

21-25. (Cancelled)

26. (Withdrawn) The method of claim 17, wherein said peptide mimetic is 20 amino acids in length and has the sequence set forth in SEQ ID NO: 5 or SEQ ID NO: 6.

27. (Withdrawn) The method of claim 17, wherein said peptide mimetic is 20 amino acids in length and has the sequence set forth in SEQ ID NO: 5 or SEQ ID NO: 6 and wherein the subject has multiple sclerosis.

28-32. (Cancelled)

Remarks

Claims 1,3-6, 10 and 13 are under consideration, and remain rejected. There are no amendments to the claims by this Response.

Applicants note that the sole remaining rejection is of claims 1, 3-6, 10, and 13, under 35 U.S.C. § 102(a) over Srinivasan et al. (*in* Peptides for the New Millennium, pp. 689-690, 1999). The Office has stated that “author R. Wardrop, who is not a co-inventor of the instantly claimed subject matter, was in possession of the claimed peptide analog prior to the filing date of the instant application” and for that reason, “the invention was known or used by others in this country.” Applicants have been “invited by the Office to provide evidence that Mr. Wardrop was not in possession of the claimed invention prior to the filing date of the instant application, or, alternatively, that Mr. Wardrop was under instructions not to disclose the sequence of the claimed peptide analog to others prior to the filing date of the instant application.”

Applicants note that § 102 (a) provides that “a person shall be entitled to a patent unless the invention was known or used by others in this country ... **before the invention thereof by the applicant** for patent.” [emphasis added] To antedate the cited reference, Applicants provide herewith a declaration under 37 C.F.R. § 1.132, signed by Dr. Pravin Kaumaya, one of the named inventors of the present application.

Referring to the MPEP § 2132.01 Publications as 35 U.S.C. 102(a) Prior Art, the Office has made clear that

A 37 CFR 1.131 AFFIDAVIT CAN BE USED TO OVERCOME A 35 U.S.C. 102(a) REJECTION

When the reference is not a statutory bar under **35 U.S.C. 102(b)**, (c), or (d), applicant can overcome the rejection by swearing back of the reference through the submission of an affidavit under **37 CFR 1.131**. *In re Foster*, 343 F.2d 980, 145 USPQ 166 (CCPA 1965). If the reference is disclosing applicant's own work as derived from him or her,

applicant may submit either a **37 CFR 1.131** affidavit to antedate the reference or a **37 CFR 1.132** affidavit to show derivation of the reference subject matter from applicant and invention by applicant. *In re Facius*, 408 F.2d 1396, 161 USPQ 294 (CCPA 1969).

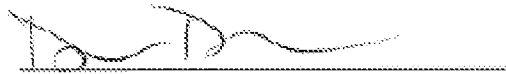
(Also see *In re Katz*, 687 F.2d 450, 215 USPQ 14 (CCPA 1982) and MPEP § 2132.01)

The cited reference was published in August of 2000, within a year of Applicant's filing date for the instant application (See 131 Declaration of Dr. Kaumaya, paragraph 3); thus, it is not a reference under § 102 (b). As stated by Dr. Kaumaya, the information described in Srinivasan *et al.* that is relevant to the subject matter of the instant application was created in the United States prior to the publication of the reference (See Declaration, paragraph 4), and the subject matter of the instant application originated with and was obtained from Applicants by the co-authors, including R. Wardrop (See Declaration, paragraph 5); thus, the invention was not known or used by others in this country before the invention thereof by the applicant. Accordingly, Applicants submit that Srinivasan *et al.* is not prior art under USC § 102 (a).

In view of the foregoing remarks, Applicants respectfully request timely allowance of the pending claims.

If there is any fee due in connection with the filing of this Response, please charge the fee to our Deposit Account No. 03-0172.

Respectfully submitted,



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